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Uttarakhand, India**MESSAGE FROM EDITOR'S DESK**

Greetings for the New Year 2022! The very challenge of the Coronavirus outbreak has paralyzed the whole world. With all the efforts given into safety and precautions, later came a major breakthrough with the development of vaccines. Along with that, even the mob was provided with the form of living against the virus around, by hygiene values and preventive measures like self-isolation, usage of sanitizers, avoiding crowded junctions, etc. Therefore, the extent of this pandemic can be minimized to massive lengths. The major goal being vaccination to everyone is yet to be achieved. The damage that COVID-19 provided was evident in how uncertain and short life span can be. The fight shall continue till the whole world shall get back to its feet.



The present volume comprises selected papers from the International Conference on Sustainable Water Resources Development & Management (SWARDAM-2021) held from 8 to 9 March 2021. In Volume 41, Number 2, April 2021, the journal broadly covers R&D studies pertaining to groundwater resources management, optimization of irrigation pipe network, hydrological modeling, drought management, spatial interpolation of climate data sets, and frequency analysis of rainfall estimates. The first paper examines the inverse problem of groundwater in a confined aquifer and develops a genetic algorithm-based approach to estimate the Transmissivity and Storativity using hydraulic drawdown measurements. This approach is capable to determine the characteristics of an aquifer, even without requiring the surrounding wells to stop pumping during measurements. In the second paper, a comprehensive design of pipe distribution network over Bakhari Distributary of Pench Irrigation Project is addressed, using EPANET 2.0 and the critical path method. In the third study, detailed hydrological modeling is carried out using HEC-HMS hydrological model over the Kankai River Basin in Nepal. The performance of the model was tested through statistical tests, based on which it is recommended for simulation of runoff for future research studies. The fourth study develops a bivariate joint distribution of drought duration and severity using various wellknown bivariate copula functions over the Marathwada region in Maharashtra, India. The fifth study compared eight different interpolation methods for gridding CMIP5 decadal experimental data to a catchment scale. Based on the skill tests over the study area, the second-order conservative (SOC) method was found to be an appropriate choice for interpolating the gridded dataset. The last study attempts to compare extreme rainfall estimates using L-moments of six Probability Distributions. The study suggests that the extreme (i.e., 1-day maximum) rainfall values for different return periods derived by GEV distribution could be further used for planning, design, and management of hydraulic structures in Afzalpur and Kalaburagi sites.

Raj Deva Singh

(R.D. Singh)

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Journal Article:

Rao, S.S., 1979. "Flood Control Regulation of Reservoirs", Journal of Indian Water Resources Society, 11(2), 19-26

Chapter in Book or Paper in a Proceedings:

Singhal, S.P. and Kasliwal, R., 1991. Calibration of Conceptual Catchment Models, in Applied Water Resourcing Planning, P.V. Narasimha (Editor). Tata Mc Graw Hill Publishing Co. New Delhi.

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